September-13-12	r ID 899 8:31:11 AM			*899	945*							Page 1
Revision ID:	D412-742-01 Float Skidtube		<u> </u>	Accept	*N900	040	100)*	Setup	Start Stop	1/1	S1* S2*
Start Date: 9 Required Date: 1 Reference:	9/13/12 10/12/12	Start Qty: 1.0 Req'd Qty: 1.0	•		Cust Item 1 Customer:							• **
	Process Pla	n: MLJ	Date: 12-09-			ate:			Run	Start Stop	1/1	R1* R2*
Sequence ID/ Work Center ID		Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accep Qty	t Re	eject ty	Reject Number	Insp. Stamp
Draw Nbr		ision Nbr										
IIN D412-742	E		× 5D	0.00			.				·	60
100		DOCUMENT CON	VTROL	0.00)			<i>f</i> .	05 12:10
DC Document Control		Memo Photoco		0.00 els per PPP D412-742-013	CHG007				H)	Las	MUS	12-10-2
110		Pick Kit		0.00								
110 Packaging Packaging		Memo		0.00				/x	. .		lè	D-10-5
120 *120*		QC4- 100% Inspect	t kits for completeness	0.00				\				DAG 12.10

NCR: Y	es / No				WORK ORDER NON-O	CON	IFORM	MANCE / UP	DATE			•
										QA Closed:	Date	ž.
Work Orde	er:				DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part N	۱o				Scrap]		Machining	Small Fab	ł.	d. Eng. Coor.	Quality
					Use-as-is	↓ 	Thern	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	No				Work Order Update	ا		Large Fab	Composite	ļ	Supplier	
Root				Descri	ption of work order update	l i	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other	_											
Process												
Supplier					•							
Training												
Unapproved			İ						 			
						AUL	T CATE	GORY				
Landi	ng Gear				General		l		_	7	_	 -
	Bending			ļ	Bend	-	Grain		<u> </u>	Ovalized	-	Pressure/Forced
		lot Conce	ntric to	o/s	BOM/Route	\vdash	Hardwa			Over/Under	-	Temperature/Cure
	Cracks Broken/Damaged					_		ion Incomplete		Part Incorred	<u>}-</u>	Weld
	Crushed/Crimped Burrs					\vdash		ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
Cuffs Contamination							Mainte			Part Moved		
Heat Treat Countersink						\vdash	Mislabe			Positioned V		_
	Inspection Strip in Tube Cut Too Short						Misread	d		Power Loss/	Surge	Other
Ripples in Bend Drill Holes							Offset					
	Torque V	Waves in I	Extrusio	n [Drawing		Out of	Calibration				

Out of Sequence

Outside Dimensions

DQA: ____ Date: ___

Turning Sequence

Wave/Twist in Tube

Finish

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Page 1

Work Order ID:

89945

Parent Item:

D412-742-013

Parent Item Name:

Float Skidtube Installation

Start Date: 9/13/12

Required Date: 10/12/12

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev: A05.10.13New Issue KJ/JLM

IPP Rev:B 06-06-08 As per DSI9336 JLM

IPP RevC 07-12-03 ECN

1072

DD verified by:JLM

IPP Rev:D 08-09-08 ecn 08-510 DD verified by:EC

IPP Rev:E 09-01-23 as per DSI9441 DD verified by:EC 10.01.13 verified by:EC

IPP RevF: add AN4C7A DD IPP Rev:G 11.11.01 as per DSI9517 REV.B DD verified

by:EC IPP rev:H 12.01.12 PER IIN REV.E DD VERF:

IPP Rev:I add AN4C47A

	DD 12.03.14 verif	fied by:EC			<u> </u>								
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4C47A Bolt		Purchased	No			110	Each	112.0000	4	4	€.	6	
				Location		Loc Qty	<u>Lo</u>	c Code			,		
				ST359		50					•		
				122	2843	50							
				ST361		62							
				118	3451	6							
				119	9798	2							
					1009	22							_
					1585	2				11 "			1
				122	2491	30				4			. 4
D412-742-043		Manufactured	No			110	Each	0.0000	1	1	18	706	9 P
Replacement Float Skidtub	e										100	100	1-92
D2571		Manufactured	No			110	Each	5.0000	1	3349	×1 6	SD	
Saddle, Fwd Out 205										20 (3	
				Location		Loc Oty	Lo	c Code					
				ST		1							
				110	644	1							
				ST425		-13							
				ST429		4							
				88	194	4							

												DQA:	Date	:	
NCR:	⁄es	/ No					WORK ORDER NON-C	O	IFORM	MANCE / UPE	DATE	•		•	•
												QA Closed:	Date	:	
Vork Ord	er:						DISPOSITION				AGAINST DE	PARTMENT/	PROCESS		
Part I	No.						Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining oforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. e/Packaging Supplier	⊣	ering uality Other
												-		_	
Root Cause		Date	Step	Qty	Desc	-	otion of work order update or Non-conformance	!	nitial ief Eng	Act Descr	ion iption	Sign & Date	Verification	QC II	nspector
oc/Data				2.7		_		-	O						
quip/Tooling															
perator 🐔 laterial														ł	
etup ther	_														
rocess	\vdash														
upplier	┢─														
raining	┢							1							
napproved								l							
парріочеа	<u> </u>	<u> </u>	l	<u></u>	L		F	AUL	T CATE	GORY		1		1	
Landi	ng (Gear					General								
	Ŭ	Bending			Γ		Bend		Grain			Ovalized	Γ	Pressure	/Forced
		Centre No	ot Concer	ntric to	o/s		BOM/Route		Hardwa	re		Over/Under	tolerance	Tempera	iture/Cure
-	Cracks Broken/Damaged								Inspect	on Incomplete		Part Incorred	ct	Weld	
ei Ti	Crushed/Crimped. Burrs									ions Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong S	tock Pulled
	Cuffs Contamination								Mainte	•		Part Moved	- <u>L</u>		-
		Heat Trea	t		ļ		Countersink		Mislabe	led		Positioned V	Vrong		
		Inspection	n Strip in	Tube	Ì		Cut Too Short		Misread	I		Power Loss/		Other	
	Ţ	Ripples in			ľ		Drill Holes		Offset		<u>L</u>			1	
		Torque W	aves in E	xtrusio	n Ì		Drawing		Out of (Calibration					
	Γ	Turning S			ļ		Finish		Out of S	equence					

Outside Dimensions

Wave/Twist in Tube

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Picklist Print September-13-12 8:31:09 AM

Work Order ID:	89945								
Parent Item:	D412-742-013						Date: 9/13/12	=	Date: 10/12/12
Parent Item Name:	Float Skidtube Installation					Start	Qty: 1.00	Required	Qty: 1.00
Saddle, Fwd In 205	Manufactured	No		110 E	ach	17.0000	1	<u></u>	SO
			Location	Loc Qty		Loc Code	O.		
			ST432	6					
			71107	2					
			86889	4			-		
			ST441	11				<u> </u>	
			84990	1				_	
			89011	5			11		
			89322	5				<u> </u>	λ
D2573 Saddle, Aft Out 205	Manufactured	No		110 E	ach	28.0000	1	\$\frac{1}{2} \rightarrow \dots	-
			Location	Loc Qty		Loc Code		01	1
			ST423	-12				_	
			79424	0					
			ST429	4				_	
			88809	4				<u> </u>	
			ST442	24					
			86967	12					
			88963	12				<u> </u>	
D2574 Saddle, Aft In 205	Manufactured	No	,	110 E	ach	22.0000	1	1-616	5-1-2
			Location	Loc Qty		Loc Code	\circ		
			ST429	4					•
			86958	4					
			ST442	18					•
			86957	6					
			88740	12					

												DQA:	D	ate: _	
NCR:	/es	/ No		•		WORK ORDER NON-O	O	NFORM	MANCE / UP	DATE		•		-	•
									_			QA Closed:	. D	ate:	
NAC and Consider				-		DISPOSITION			· - ·	AGAINST D	EF	PARTMENT	PROCESS		
Work Orde	er: -		-		<u></u>	Rework	1		Skid-tube	Crosstube	\neg		Water Je	٠	Engineering
ِ Part N	٠.	•				Scrap	1 1		Machining	Small Fab	\dashv	Pro	d. Eng. Coor	\vdash	Quality
Parti	NO					Use-as-is	1		noforming	Finishing	\dashv		e/Packagin	\vdash	Other
NCR N	do.					Work Order Update	1 1		Large Fab	Composite	┪	rice, stor	Supplie	-	
IVERT	•0.		<u>-</u>			Work Order opaute	J		zarge (ab	Composite			oappc	`	<u></u>
Root	Ī				Descri	ption of work order update		nitial	Ac	tion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	on	QC Inspector
Doc/Data															
Equip/Tooling														l	·
Operator															
Material				:											
Setup														ļ	
Other														ļ	
Process														ŧ	
Supplier														ļ	
Training	Ш													1	
Unapproved				<u> </u>			<u> </u>								
						.	AUL	T CATE	GORY						
Landi					_	General	_	,		_		1		_	1
		Bending				Bend		Grain		L	_	Ovalized		\perp	Pressure/Forced
	\vdash	Centre No	ot Concer	ntric to	o/s	BOM/Route	_	Hardwa		1		Over/Under		\vdash	Temperature/Cure
		Cracks			<u> </u>	Broken/Damaged		1 '	ion Incomplete	L		Part Incorre		\vdash	Weld
	Н	Crushed/	Crimped.		<u> </u>	Burrs		4	ions Incomplete	'Unclear		Part Lost/M	issing		Wrong Stock Pulled
i	Ш	Cuffs			L	Contamination		Mainte	enance			Part Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

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September-13-12 8	3:31:09 AM								
Work Order ID: Parent Item: Parent Item Name:	89945 D412-742-013 Float Skidtube Installation	-					Oate: 9/13/12 Qty: 1.00	Required Date: Required Qty:	
D2876 Saddle Spacer	Manufactured	No		110	Each	112.0000	2	2 80.	60
·	••		Location ST020 88282 89181	Loc Qty 81 42 39		<u>Loc Code</u>		- -	
			ST022 86734 87292	31 25 6			20	- - - \	<u> </u>
Saddle Spacer	Manufactured	No	<u>Location</u>	110 <u>Loc Qty</u>	Each	105.0000 Loc Code	2	, ²	20
			86442 86890 89330	105 8 52 45				_ _ _	
D3403-1 Bushing	Manufactured	No		110	Each	33.0000	8	&5782 (er	
			Location ST041 70696	Loc Qty 15 15		Loc Code		- -	
			80208 80219 85661	18 7 4 7				 	. S
D3403-5 Bushing	Manufactured	No	I	110	Each	121.0000 Loc Code	* 50	8 12-10-	<u>.1 </u>
			<u>Location</u> ST044	<u>Loc Qty</u> 121		Loc Code	-/ /	_	

26 95

85847 86832

										DQA:	Date:	
NCR:	es / No				WORK ORDER NON-C	100	VFOR	MANCE / UPDATE		OA Classel.	Date:	•
	.				<u> </u>					QA Closed:	Date	
Work Orde	or:				DISPOSITION			AGAINST	DE	PARTMENT/	PROCESS	
WOIK OIG			-		Rework	1		Skid-tube Crosstube			Water Jet	Engineering
Part N	10.				Scrap			Machining Small Fab		Prod	d. Eng. Coor.	Quality
					Use-as-is]	Thern	noforming Finishing		Rec/Stor	e/Packaging	Other
NCR I	No				Work Order Update]		Large Fab Composite			Supplier	
_		1	1					A -A:		C: 0		
Root				1	ption of work order update		Initial	Action		Sign &	\	06 (100000000000000000000000000000000000
Cause	Date	Step	Qty		or Non-conformance	Cr	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator	_	1										
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Setup												
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Process												
Supplier												
Training												
Unapproved												
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Landi	ng Gear				General		-			_	-	_
	Bending	S			Bend		Grain			Ovalized		Pressure/Forced
	Centre	Not Conce	ntric to	O/S	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
•	Cracks				Broken/Damaged		Inspect	ion Incomplete		Part Incorre	ct	Weld
	Crushed/Crimped. Burrs						Instruct	tions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
•	Cuffs				Contamination		Mainte	enance		Part Moved		
	Heat Tr	eat			Countersink		Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration
Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

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September-13-12 8:31:10 AM

Work Order ID: Parent Item:	89945 D412-742-013						Start 1	Date: 9/13/12	Required	Date: 10/12/12
Parent Item Name							Start	Qty: 1.00	Required	l Qty: 1.00
D2747 Set Screw	Manufacture	ed ^{No}			110	Each	288.0000	4	4	
			Location		Loc Qty		Loc Code	Ol		
			ST017		88					
				79520	5					
				86439	83			-4x	<u></u>	
			ST019		200					
				86827	200					
D3533-1 Set Screw	Manufacture	ed ^{No}			110	Each	156.0000	2	34899	SP.
			Location		Loc Qty		Loc Code			. ,
			ST053		2					
				80326	2					
			ST055		100					
				88328	100					
			ST058		54					
				87348	54			_2	<u>.X</u>	æ
S AN4C6A Bolt	Purchased	No		-	110	Each	643.0000	16	16 57	
			Location		Loc Qty		Loc Code			
			FG		4					
				103344	4					
			ST355		500					
				122800	500					
			ST356		139					
				116704	2					
i				120423	1					
/				121657	136			/4	2 ¥	
AN4C53A	Purchased	No			110	Each	73.0000	4	20-10)-/ S
Bolt									A 10-10	-1-34
			Location		Loc Qty		Loc Code	_	•	
			ST361		73					
				122193	73				<u>L</u>	
Santanahar 12 1			· · · · · · · · ·	Cl. 1	Packet Print					- Page

												DQA:	Date:	
NCR: Y	'es	/ No					WORK ORDER NON-C	ON	NFORM	ANCE / UPD	ATE	-		
					_							QA Closed:	Date:	
•					_		DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
Nork Orde	er: -						Rework			Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	÷.					Ì	Scrap	1		Machining	Small Fab	Proc	I. Eng. Coor.	Quality
raitiv	7	•	···			١	Use-as-is			noforming	Finishing	4	e/Packaging	Other
NCR N	lo.					۱	Work Order Update			Large Fab	Composite]	Supplier	
	•													
Root					Desc		tion of work order update		nitial	Acti		Sign &		
Cause	_	Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
oc/Data	_													
quip/Tooling	4													
perator	\dashv													
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etup Ither	-													
rocess	\dashv													
upplier														
raining														
napproved														
							F	AUL	T CATE	GORY				
Landi	ng G	iear			_	_	General		1		_	٦	_	۱
	_	Bending				_	Bend	<u> </u>	Grain			Ovalized	ļ	Pressure/Forced
		Centre No	t Concer	ntric to	o/s	$\overline{}$	BOM/Route	L	Hardwa		_	Over/Under	<u> </u>	Temperature/Cure
	_	Cracks				_	Broken/Damaged	_	1	ion Incomplete	 	Part Incorred	 	Weld
·	Crushed/Crimped. Burrs								ł	tions Incomplete/U	nclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				_	Contamination	<u> </u>	Mainte Mislabe		-	Part Moved Positioned V	Vrong	
		Heat Trea Inspection		Tubo	-	_	Countersink Cut Too Short	\vdash	Misrea			Power Loss/	_	Other
	\dashv	Ripples in		rube	-		Drill Holes	<u> </u>	Offset		L	Ti ower coss/		Carici
:	-	Torque W		xtrusio	, ի		Drawing	\vdash	}	Calibration				
		Turning Se			··		Finish		1	Sequence				
		Wave/Tw			f		Folio	Г	1	Dimensions				

Picklist Print
September-13-12 8:31:10 AM

	89945 D412-742-013						Start D	Date: 9/13/12	Required Date: 10/12/12
Parent Item Name:	Float Skidtube Instal	llation					Start (Qty: 1.00	Required Qty: 1.00
AN4C52A BOLT		Purchased	No		110	Each	114.0000	4	o ⁴ .
				Location	Loc Qty		Loc Code	٠,	
				ST360	56				_
•				1 <u>22518</u> -	36			<u> 4</u> x	
				122843	20				<u> </u>
				ST361	58				<u> </u>
				117688	6				
<		D 1 1	No	122843	110	Each	136.0000	•	
AN6C12A BOLT		Purchased	NO		- 110	Eacii	130.0000	0	
/ BOL1				I anadian	Leis Otto		Las Cada		
				Location	Loc Oty		Loc Code		•
				ST339 122 <u>808</u>	120 120	•		1/	
				ST341	120				
				121541	7			-	_
				122204	9			$\overline{\mathbf{Z}}$	X 🔊
D3672-3 Phenolic Washer		Manufactured	No	-	110	Each	1,761.0000	32	32
		•		Location	Loc Qty		Loc Code		
				ST060	751				<u> </u>
		•		84432	251				and the second s
				86517	500			<u>_3)</u>	_
				ST061	1010			-	_
/				88441	500				
				89273	510		0.0000		
) AN960C416L WASHER		Purchased	No		110	Each	0.0000	32 	131255 SP \$
D3672-9 Phenolic Washer		Manufactured	No		110	Each	276.0000	'SP	12-10-1
				Location	Loc Qty		Loc Code	<u> </u>	
				ST060	276				
				81763	276			80	<u>_</u> .

											DQA:	Date	e: _	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	AANCE / UPDATE	E				,
									***		QA Closed:	Date	9:	
Work Ord						DISPOSITION			A	GAINST DEI	PARTMENT	PROCESS		
Work Ord	er.					Rework	1		Skid-tube Cro	osstube		Water Jet	٦	Engineering
Part I	VIO.					Scrap	1 1		—	nall Fab	Pro	d. Eng. Coor.	┪	Quality
luici	10.					Use-as-is			~ —	inishing		e/Packaging	7	Other
NCR I	No.					Work Order Update	1		~ — —	mposite	•	Supplier	ヿ	
							J		<u> </u>	· <u> </u>				
Root					Descri	ption of work order update		Initial	Action	_	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description	n	Date	Verification	\perp	QC Inspector
Doc/Data		•											١	
Equip/Tooling														
Operator		€											١	
Material														
Setup													1	
Other														
Process														
Supplier			1											
Training			}	,			ļ							
Unapproved	<u>. </u>	l		<u> </u>	<u> </u>		<u> </u>				İ			
							AUI	LT CATE	GORY					
Landi	ng (1			_	General	_	1			1	Г	\neg	- 45
	<u> </u>	Bending			.	Bend	-	Grain			Ovalized	<u> </u>		Pressure/Forced
	<u> </u>	Centre N	ot Conce	ntric to	O/S	BOM/Route	\vdash	Hardwa		<u> </u>	Over/Under	-	_	Temperature/Cure
	<u> </u>	Cracks			<u> </u>	Broken/Damaged	 	-1	on Incomplete		Part Incorre	}-	_	Weld
	<u> </u>	Crushed/	Crimped.		<u> </u>	Burrs	\vdash	-1	ions Incomplete/Unclea	ar	Part Lost/M	issing [Wrong Stock Pulled
	\vdash	Cuffs			_	Contamination	-	Mainte		<u> </u>	Part Moved			
-	<u> </u>	Heat Trea			lacksquare	Countersink	<u></u>	Mislabe		<u> </u>	Positioned \	· -		l .
		Inspectio	n Strip in	Tube	l	Cut Too Short	I	Misread	1	<u> </u>	Power Loss,	'Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

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Picklist Print
September-13-12 8:31:10 AM

Work Order ID:	89945							
Parent Item:	D412-742-013					Start D	ate: 9/13/12	Required Date: 10/12/12
Parent Item Name:	Float Skidtube Installation					Start (Qty: 1.00	Required Qty: 1.00
SNAS1149C0632R WASHER	Purchased	No		110	Each	351.0000	8	8
			Location	Loc Qty		Loc Code	- /	•
			296	200				
			122441	200				
			ST297	151				
			119736	2				
			120308	1				
			121825	148				— A
O3672-11 Phenolic Washer	Manufactured	No		110	Each	171.0000	* 	8
			Location	Loc Qty		Loc Code	•	
			ST060	171				<u></u>
			77483	171				<u></u>
MS21043-4 Nut	Purchased	No		110	Each	1,387.0000	29	29
			Location	Loc Qty		Loc Code		•
			FG	36			•	
			104603	36				
			ST301	376				
			119546	2				
			121162	13				
			121652	361				
			ST318	975				
/			122141	975				
D3403-3 Bushing	Manufactured	No	\ <u>-</u>	110	Each	524.0000	8	p812-10-1
Ŭ			Location	Loc Qty		Loc Code	•	•
			ST042	20				
			85662	20			SX	
			ST044	504				
			88783	504				

										DQA:	Date:	
NCR: Ye	s / No				WORK ORDER NON-C	100	NFORI	MANCE / UP		QA Closed:	Date:	
Work Order:	:				DISPOSITION				AGAINST DE	PARTMENT		
Part No					Rework Scrap Use-as-is Work Order Update		١	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	ł	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	iption of work order update	l	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	-											
Equip/Tooling	4											
Operator	_		1									
Material	_											
Setup												
Other												
Process										1	1	

Unapproved **FAULT CATEGORY Landing Gear** General Bend Grain Ovalized Pressure/Forced Bending BOM/Route Temperature/Cure Over/Under tolerance Centre Not Concentric to O/S Hardware Broken/Damaged Part Incorrect Weld Inspection Incomplete Cracks Wrong Stock Pulled Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Part Moved Cuffs Contamination Maintenance Mislabeled Positioned Wrong Heat Treat Countersink Inspection Strip in Tube Power Loss/Surge Other **Cut Too Short** Misread Drill Holes Offset Ripples in Bend Out of Calibration Drawing Torque Waves in Extrusion Out of Sequence Turning Sequence Finish Folio Wave/Twist in Tube Outside Dimensions

Supplier Training

H./FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print
September-13-12 8:31:10 AM

Work Order ID: Parent Item:	89945 D412-742-013							Start	Date: 9/13	/12	Required Da	te: 10/12/12
Parent Item Name:	Float Skidtube Insta	llation						Start	Qty: 1.00		Required Q	ty: 1.00
D3405-041 PLug Assembly		Manufactured	No			110	Each	13.0000	1	Sp		
				Location		Loc Qty		Loc Code		O ,		
				ST468			9					
					86762		1					
					87370		8			/ X		
				ST478			4			·		
					62227		2					
<u></u>					77000		2	3.0000				
D3405-043 Lug Assembly		Manufactured	No			110	Each	3.0000		P	•	
				Location		Loc Oty		Loc Code				_
				ST468			2					
					86757		2			/ X		
				ST478			1					
					82038		1					
AN4C7A Bolt		Purchased	No		٠	110	Each	107.0000	4	SP4		500
				Location		Loc Oty		Loc Code		•		
				ST356		10	7					
					109147	10	7			-4X		
D3407-041 Tow Ring		Manufactured	No		-	110	Each	0.0000	1	389) 105	SPE
D3417-3 Washer		Manufactured	No			110	Each	53.0000	2	$5P^2$	12-10	0-01 5
				Location		Loc Oty		Loc Code			,	
				FG			9					
					33519		9					Sel
				ST042			4			-24.0	× (γ	•
					80225		4			- V	<u> </u>	
				•	0000	4	0			7*	XI.SE	4

												DQA:	Date	2:	
NCR:	Yes	/ No				WORK ORDER NON-O	O	NFORM	ANCE / UP	DATE		•		_	,
												QA Closed:	Date	e:	
Work Orde	3r·					DISPOSITION				AGAINST I	DE	PARTMENT/	PROCESS		
vvoik Oluk	-					Rework	1		Skid-tube	Crosstube		Water Jet	٦	Engineering	
Part No. Scrap							1	1	Machining	Small Fab	\neg	Prod	d. Eng. Coor.	╛	Quality
Use-as-is]		noforming	Rec/Stor	e/Packaging	\Box	Other		
NCR 1	Νο.					Work Order Update]		Large Fab	Composite			Supplier	┙	
Root					Descri	ption of work order update	 	nitial	Ac	tion		Sign &		П	
Cause		Date	Step	Qty		or Non-conformance	1	ief Eng		ription		Date	Verification		QC Inspector
Doc/Data														\Box	
Equip/Tooling	-]												
Operator *											ĺ			- 1	
Material															
Setup															
Other							1								
Process															
Supplier															
Training			ļ												
Unapproved															Lane.
						F	AUL	T CATE	GORY						
Landi	ng G	Gear				General		_				_	_		
		Bending				Bend		Grain				Ovalized			Pressure/Forced
Centre Not Concentric to O/S BOM/Route					Hardware					Over/Under tolerance			Temperature/Cure		
	Cracks Broken/Damaged						Inspection Incomplete					Part Incorrect			Weld
	Crushed/Crimped. Burrs						Instructions Incomplete/Unclear					Part Lost/Missing			Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Contamination Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio Part Moved

Positioned Wrong

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Picklist Print
September-13-12 8:31:11 AM

Work Order ID:	89945									
Parent Item:	D412-742-013						Start 1	Date: 9/13/12	Required Date: 10/12/12	2
Parent Item Name:	Float Skidtube Installation						Start	Qty: 1.00	Required Qty: 1.00	
D3456-1 Washer	Manufactured	No			110	Each	159.0000	1	\$ SD	
			Location	<u>n</u>	Loc Qty		Loc Code			
			FG			7				
				25701		7				
			ST044		5	2			Manda ***	
				80252		l		1	<u></u>	,
				85223	5			——/-X	(
			ST047		10					A
				89237	10			-		AN
AN3C37A BOLT	Purchased	No			110	Each	155.0000	1 - M	11986SP.	30
			<u>Locatio</u>	<u>n</u>	Loc Qty		Loc Code			
			ST324		5	0				
				122204	5	0				
			ST353		8	8				
				122491	5	0				
				122843	3	8				
			ST354	٤	1	7				
				116874	1					
				117010		2				
				120422		3				
				121584		1 - 1	46,0000			
S AN3C40A BOLT	Purchased	No			110	Each	46.0000		D-10-01	Set 1
			Locatio	<u>n</u>	Loc Qty	_	Loc Code			
			ST353		3	0				
				122843	3	0			<u> </u>	
			ST354		1	6				
				114442	1	6		/X		
				·				, ,	•	

NCR: Y	es ,	/ No				WORK ORDER NON-	COI	NFORM	/ANCE / UPD	ATE	•		
											QA Closed:	Date	
Work Orde	ır.					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N	Part No. NCR No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root Cause		Date	Step	Qty		ption of work order update or Non-conformance		Initial nief Eng	Acti Descri		Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling													
Operator Material													
Setup Other	_												
Process													
Supplier Training													
Unapproved				<u> </u>	· · · <u>-</u>		<u> </u>	LT CATE	GORY				
Landi	ng Ge	ar				General	AUI	LICAIL	3001	· · · · · · · · · · · · · · · · · · ·			
		ending				Bend		Grain			Ovalized	Γ	Pressure/Forced
1		entre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks					Broken/Damaged		Inspecti	ion Incomplete		Part Incorre	ct	Weld
	Crushed/Crimped_					Burrs		Instruct	ions Incomplete/U	nclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs					Contamination		Mainte	nance		Part Moved		_
	Heat Treat Countersin					Countersink		Mislabe	led		Positioned V	Vrong	
	ir	rspection	n Strip in	Tube		Cut Too Short		Misread	1		Power Loss/	Surge	Other
	R	ipples in	Bend			Drill Holes		Offset					
						Drawing	Out of Calibration						

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID: Parent Item: Parent Item Name:	89945 D412-742-013 Float Skidtube Insta	llation								Pate: 9/13/12 Qty: 1.00		Required Date: 10/12/12 Required Qty: 1.00
an3c41a Bolt		Purchased	No			110		Each	137.0000	1	SP-	·
				Location	<u>!</u>	Loc Q	<u>tv</u>		Loc Code		_,	
				FG			4					
					103324		4					
				ST354			133					
					121313		80					
					121689		1					
					122241 122843		5 47				ı V	
		- 1 I	No		122043	110		Each	87.0000	1	1	
AN3C42A BOLT		Purchased	NO			110		Lacii	67.0000	·	$\mathcal{S}_{\cdot,}$	
				Location	1	Loc C	<u>)ty</u>		Loc Code			_
				ST354			87					
					106176		1					
					120464		l					
					121103		5				/	
					1 <u>22241</u> 122843		50 30				-	
AN3C43A BOLT		Purchased	No		122013	110	50	Each	92.0000	4-8	p 4	
				Location	<u>n</u>	Loc (<u> Oty</u>		Loc Code		•	
				ST354	_		92					
					114455		2					
					119673		1					
					12 <u>0465</u>		39			<u> </u>	<u> </u>	G.
					122843		50	r- 1	44.0000			
AN3C46A BOLT		Purchased	No			110		Each	44.0000	, (<u> 26</u>	12-10-01.
				<u>Locatio</u>	<u>n</u>	Loc (<u>Qty</u>		Loc Code			
				ST354			36					
					122843		36				2×_	
				ST355	122204		8 8					

									DQA:	Date:				
NCR: Ye	es / No				WORK ORDER NON-C	ONFOR	MANCE / UF		QA Closed:	Date:	•			
Mork Order					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	<u>-</u>			
Work Order					Rework]	Skid-tube	Crosstube		Water Jet	Engineering			
Part No	0.				Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality			
					Use-as-is									
NCR No	0		 		Work Order Update]	Large Fab	Composite		Supplier				
Root				Descri	I ption of work order update	Initial	A	ction	Sign &					
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Des	cription	Date	Verification	QC Inspector			
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process			,											
Supplier														
Training														
Unapproved		<u> </u>												
					F	AULT CAT	EGORY							
Landing	g Gear				General									

Grain

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Broken/Damaged

Ovalized

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Over/Under tolerance

Pressure/Forced

Weld

Other

Temperature/Cure

Wrong Stock Pulled

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

September-13-12 8:31:11 AM

Work Order ID:

89945

Parent Item:

D412-742-013

Parent Item Name:

Float Skidtube Installation

AN960C10L

MS21043-3

washer

NAS1149C0332R

Purchased

Purchased

110

Each

21.0000

Loc Code

Start Qty: 1.00

Start Date: 9/13/12

Required Date: 10/12/12

Required Qty: 1.00

Location ST No

No

107534

121255 121708

122993

ST315

21 21

Loc Qty

Each 770.0000

Loc Qty Loc Code Location 72 FG 72 103691 198 ST301 118077 2 7 118614 30 118686 119758 20

110

20 119 500 500

												DQA:	Da	te:	
NCR:	Yes	/ No				WORK ORDER NON-	100	NFORN	ANCE / UP	DATE		•		_	*
*		,										QA Closed:	Da	te:	
Work Orde	or:					DISPOSITION				AGAINST D	E	PARTMENT	PROCESS		
VVOIK OIG	C1.					Rework	1		Skid-tube	Crosstube	٦		Water Jet	\Box	Engineering
Part I	No.					Scrap	1	1	Machining	Small Fab	٦	Pro	d. Eng. Coor.	П	Quality
	,					Use-as-is		Therm	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR 1	No.					Work Order Update			Large Fab	Composite					
, ,				· · · · · ·							_	C: 0		—	<u> </u>
Root		Doto	Cton	0.51		ption of work order update or Non-conformance		Initial nief Eng		tion ription	ł	Sign & Date	Verificatio	,	QC Inspector
Cause Doc/Data		Date	Step	Qty		or Non-comormance	CI	ilei ciig	Desc	приоп	-	Date	Vermeatio	''	QC IIIspector
Equip/Tooling	Н														
Operator	\vdash										l				
Material							1					į			
Setup														-	
Other			3												
Process							ŀ	i							
Supplier			1												
Training															
Unapproved			<u> </u>												
							AUI	LT CATE	GORY						-
Landi	ing (1			Г	General		J		_		1			l_
	\vdash	Bending			_	Bend	-	Grain		-		Ovalized	**!*****	-	Pressure/Forced
	\vdash	Centre No	^{0/S} -	BOM/Route	-	Hardwa		-		Over/Under		\vdash	Temperature/Cure Weld		
1	Cracks Broken/Damaged Crushed/Crimped. Burrs						\vdash	- 1 '	on Incomplete	Unclear		Part Incorre Part Lost/M		\vdash	Wrong Stock Pulled
						Contamination	Instructions Incomplete/Unclear Part Lost/M Maintenance Part Moved						1331118	<u> </u>	TWO ONE STOCK FUILED
	-	Heat Trea	at		<u> </u>	Countersink	\vdash	Mislabe		<u> </u>	Positioned Wrong				
	-	Inspectio		Tube		Cut Too Short		Misread		<u> </u>	Power Loss/Surge			Other	
	\vdash	Rinnles in	•			Drill Holes	\vdash	Offset		<u>L</u>	1	U -	<u> </u>	I	

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G